

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number
WO 2005/083235 A1

(51) International Patent Classification⁷: **F01D 5/18**

(21) International Application Number:
PCT/EP2005/050804

(22) International Filing Date: 25 February 2005 (25.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0400477-6 27 February 2004 (27.02.2004) SE

(71) Applicant (for all designated States except US):
SIEMENS INDUSTRIAL TURBOMACHINERY
A.B. [SE/SE]; Slottsvägen, S-612 83 Finspong (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ANNERFELDT,**
Mats [SE/SE]; Bandvägen 1, S-612 36 Finspong (SE).

SHUKIN, Andrey [SE/SE]; Rytтарvägen 20, S-612 34
Finspong (SE). **SHUKIN, Sergey** [SE/SE]; Rytтарvägen
20, S-612 34 Finspong (SE).

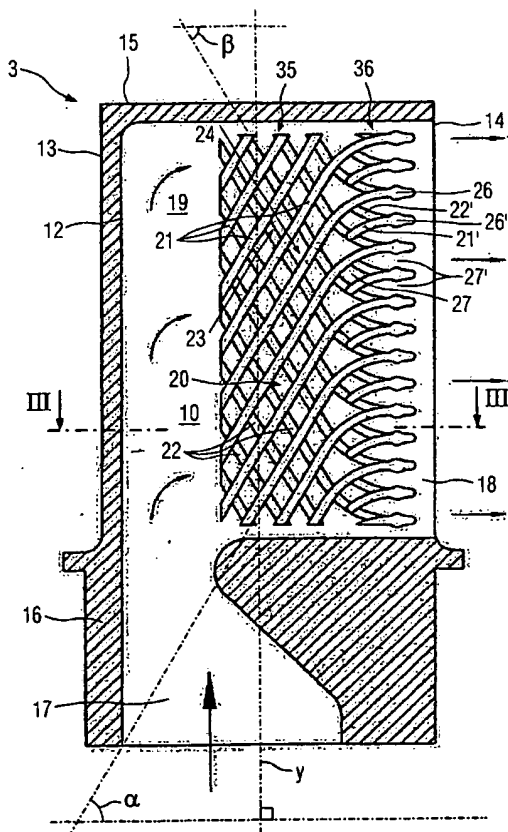
(74) Agent: **BERG, Peter**; Siemens AG / Postfach 22 16 34,
80506 München (DE).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: **BLADE OR VANE FOR A TURBOMACHINE**



(57) Abstract: A component defines a blade or a vane for a rotor rotatable about a rotary axis (x). An inner space (10) of the component is limited by first and second walls (12), and forms a passage for a cooling fluid. First and second ribs (21, 22) project from the first and second walls, respectively, and form first and second channels for the fluid from a leading end to a trailing end of the ribs. The first and second ribs intersect and are directly connected to each other at said intersections. The first and second ribs intersect at an intersection joint (26) in the proximity of the trailing end in such a way that the first channel (23) and the second channel (22) form a common outlet channel (27) with a flow area.

WO 2005/083235 A1



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.